



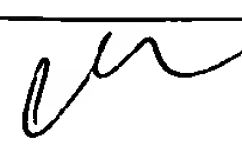
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/902,594	07/12/2001	Tsuyoshi Shibata	862.C2293	9420
5514	7590	04/05/2004	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			LIANG, LEONARD S	
			ART UNIT	PAPER NUMBER
			2853	

DATE MAILED: 04/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/902,594	Applicant(s) SHIBATA, TSUYOSHI 	
	Examiner Leonard S Liang	Art Unit 2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-14 is/are allowed.
- 6) ☒ Claim(s) 15-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2853

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 15-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Chan et al (US Pat 5111302).

Chan et al discloses:

- {claim 15} A printing apparatus for gray scale printing, comprising: means for acquiring gray scale values of surrounding pixels of a print pixel to be printed; means for comparing the gray scale values of the surrounding pixels and a gray scale value of the print pixel to be printed; means for determining a pattern positioning dots in the print pixel based on a result of the comparison means (column 2, lines 27-66; column 3, lines 33-64)
- {claim 16} the gray scale value of the print pixel is an average value of gray scale values of all pixels within the print pixel (figure 5B)
- {claim 17} the surrounding pixels are pixels at positions extending from four corners of the print pixel (figure 5B)
- {claim 18} the determining means further determines a driving position of a print element corresponding to a type of ink (column 2, lines 23-66)
- {claim 19} the determining means determines the driving position of the print element by looking up a table (column 2, lines 23-66)
- {claim 20} the determining means determines the pattern by looking up a table (column 2, lines 23-66)

Allowable Subject Matter

Claims 1-14 are allowed. The reasons for allowance were outlined in a previous rejection.

Response to Arguments

Applicant's arguments filed 12/29/03 have been fully considered but they are not persuasive.

The applicant argues, "Applicant submits that Chan et al. does not disclose or suggest detecting gray scale values of surrounding pixels of a subject or print pixel. Rather, Chan et al merely discloses changing the 2X2 dots comprising the subject pixel based on a gray scale value of the subject pixel itself, rather than gray scale values of surrounding pixels of the subject pixel." The examiner believes that the applicant may be improperly narrowing the claimed invention. Chan et al discloses gray scale printing of dots of one or more colors in a controlled ordered sequence into a plurality of superpixels defined by a given number of said pixels. Thus, the examiner interprets the claimed invention of means for acquiring gray scale values of surrounding pixels of a print pixel to be printed; means for comparing the gray scale values of the surrounding pixels and a gray scale value of the print pixel to be printed; and means for determining a pattern positioning dots in the print pixel based on a result of the comparison means as describing the way in which the superpixels are formed; the pixels forming the superpixels are seen as the subject print pixels, and not the superpixel itself. The examiner hopes that this interpretation helps to clarify the examiner's stance. Regardless of the interpretation however, the examiner believes that the claimed invention, as currently claimed in claim 15 is inherent to the digital data representation of Chan et al. The means for acquiring, comparing, and determining, as currently claimed must be in the present disclosure of converting digital information to gray scale information, or else the printing disclosed in Chan et al could not be executed properly. The examiner recommends the applicant to more specifically define what is meant by "comparing" and "determining" in the claimed invention.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wang (US Pat 6483940) discloses a method for dividing image.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

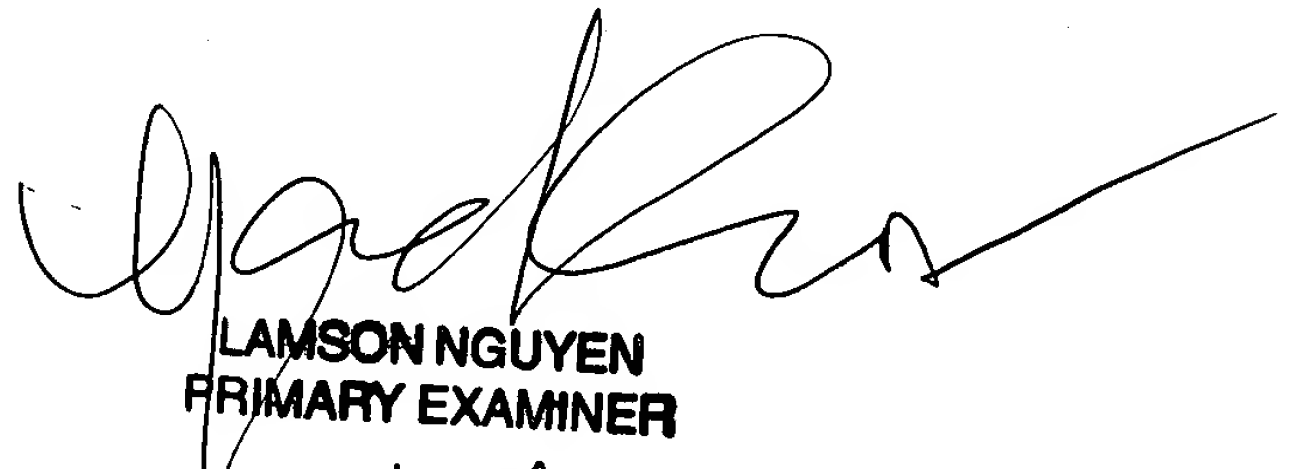
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard S Liang whose telephone number is (703) 305-4754. The examiner can normally be reached on 8:30-5 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (703) 308-4896. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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LAMSON NGUYEN
PRIMARY EXAMINER
3/29/04